



COLORADO

#### WEEKLY HAM BREAKFAST

Local HAMS get together each Saturday at the Village Inn restaurant at Palmer Park and Academy Blvd. Early birds get there as soon as 0000 with others wandering in between 0630 and 0800. Anyone interested in Ham Radio is invited to attend.

OCTOBER

REMINDER:

**CLUB ELECTIONS** THIS MONTH

PIKES PEAK RADIO AMATEUR ASSOCIATION, INC.

P.O. Box 16521 Colorado Springs, CO 80935

FIRST CLASS MAIL





# O BEAT



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	"Mark Richardson 2005DE 1903 Diseas May Books	4014007
	"Mark Richardson W0EPF 3803 Dixon Way 80909	596-6916
	NOTE CAIAWAY YMEMINE DIG NORTH JIST SE 80904	471.0065
	Lauren Libby KXDO 6166 Del Paz Dr. 80918	507.0861
	Al Vrooman NDCMW 1341 Diana Lane 80909	453.2001
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	Ron Deutsch NKDP 4305 Ridgelane Dt. 80918	ED1 01E1
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Denotes first year of a two year term.

ZERO BEAT is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., P.O. Box 16521, Colorado Springs, Colorado 80935. Cost is \$1.00 per month for non-members or \$10.00 per year by subscription. Permission is given to reprint articles or excerpts provided credit is given. Deadline for submission of articles or classified advisit to the 21st of each month. Submissions may be sent directly to the editor or to the club P.O. Box.

The Pikes Peak Radio Amateur Association meets on the second Wednesday of each month at the Eiks Lodge, 3400 North Nevada Ave. at 7 PM. EDITOR: Ron Deutsch NKBP 4305 Ridgelane Drive, Colorado Springs, Colorado 80918 (719) 593-8352. Electronic data transfer by appointment.

### Message from the President...

Well, the time has come for me to write my last column. As you all know, the annual elections will be held at our next meeting and I will not be running for the position of President this time due primarily to pressures brought on by changes in my life outside the world of amateur radio.

This has been an interesting year for me. I find it rewarding to have seen the club grow considerably in size during the year, though I can hardly take credit for it. There is no doubt in my mind that the no-code license has been a major factor in that growth, especially in terms of the publicity surrounding its introduction. And all that has been really helped by the activities of Al Craig N2IWZ the club's Publicity Manager. His efforts have been very visible, none more so than the event he staged recently at the Citadel Mall to promote Amateur Radio Public Awareness Day.

I must also thank the other officers, board members, committee chairpersons, and club members who've helped out when there was something to be done. I just hope my successor has the same good fortune to receive as much support as I have during the past year.

That brings me back to the subject of the elections. It's time for others to come forward to participate in the running of the club. It's not very hard work for the most part, but it does require a limited time commitment on the part of the individual to attend both the club meetings and board meetings. A term on the board or as a club officer is not supposed to be a lifetime commitment, but nevertheless potential candidates should consider this commitment to be a

serious one. Therefore, you will see elsewhere in this issue of Ø-beat a proposal to amend the club By-Laws to reinforce that position.

So how might you be able to help? The officer positions (President, Vice-President, Secretary, and Treasurer) must all be voted on. Any club member in good standing may run for any of those positions. You do not have to be a current board member.

Also, the four board members without an asterisk by their names at the head of this page (with the exception of Ron NKØP as Ø-best Editor) have fulfilled their two year term on the board and will only continue to serve if voted in again (if they choose to run). So there will be several board member positions for which any club member in good standing may run.

Personally, I'd like to see some participation by some of the newer hams. Many of the longer-licensed (I figured I'd better not say "older"!) hams have been on the board and/or been officers of the club in the past, and it's always a good idea to have new people participate to bring in new ideas. It would also be nice to see more participation by the growing number of YL's and XYL's in the club.

Finally, I'd just like to thank the membership for giving me this opportunity to participate in the club to such an extent. I hope I have met at least some of your expectations while having such a good time along the way!

I'll look forward to seeing you at the next meeting.

73 Dave, NOION

#### **TIPS & TIDBITS**

Rick Brown - KDØSU

Those of you who know me realize that I am always looking for inexpensive solutions to my problems. Some of you may call me cheap, but that is a different story. Here are three items from Radio Shack that may help you out with various problems.

The first item is a headset-boom microphone that does not cost an arm and a leg (try \$12). This is a replacement item that is sold for one of their 49 Mhz rigs. It includes an electret microphone, one headphone, and an antenna. The part number is Z-7868 and it must be ordered through your local store. The wires coming from the headset are as follows. The individual blue and black wires are the carphone audio, the black wire with a shield is the microphone line, and the clear insulated wire is the RF lead. The carphone is a small 8 obm speaker that is very straight forward. The electret microphone requires voltage to it to make it work (usually anything between one and 10 volts). The antenna may be of use if you would like to connect this to your two meter HT for use during public service events. It has a small leading coil in the earphone that must be shorted out to make it work effectively. It is still a little short for a quarter wave antenna, but it does work. Those of you who are perfectionists may wish to replace the antenna with a piece of steel wire like they use for model airplane landing gear. It is cheap (there I go again) and stiff enough to work well. The only other thing needed is a switch for keying your transcoiver. I used one of these headset-boom microphones with my ICOM 735 and got very good results with it. I have another that will be wired into my HT "one of these

The second item on my list is a pocket dialer that I use for dialing up the local autopatch. I have an older rig that doesn't have a touch tone pad built in the microphone. Not being able to find the proper microphone to match my rig I have always had to ask someone to dial up numbers for me. I finally found a somewhat inexpensive solution with a Radio Shack Pocket Dialer that is acoustically coupled. I was somewhat skeptical of this at first but after several tries I found it was fairly easy to hold the dialer against the microphone and dial successfully. A word of caution - this is a two handed operation don't try it while driving down the road. There are two models of this dialer. I bought the budget model for \$16. The memory model will store 30 numbers plus it has three priority keys. This model runs \$25. I would still like to have a touch tone microphone that works with my ICOM 290, but until I can find one this seems to be a very workable solution. Those of you with older rigs may find it works for you as well.

The third item I found of use is a Nicad battery pack that fits my old Santec ST-142. This is a 9.6 volt, 600 mAh pack that is identical to the battery pack in my HT except for the connector. The original connector is a three pin header type connector I have not found anywhere. It is simple enough to take the wiring off the old battery or to make an adapter so that you can use this battery pack. For only \$18 this battery pack is a significant savings over other sources. Even if you have to do a little wiring that's OK because it gives you a feeling of accomplishment.

I guess that is about all the "cheapies" I have for now. Stay tuned for the next episode - I am sure something else will appear from time to time.

#### PPRAA ANNUAL PICNIC

The annual Ham Operators Picnic was held August 4th at the AFA picnic area...about 130-140 people attended even though the sky was overcast,

About a dozen swapfesters displayed goodies, we consumed over 7 gallons of coffee and 4 gallons of orange drink (compliments of Mc Donalds).

KB0FNM, Russ and N2IWZ, Al helped "put it together and along with others present cooked hamburgers and hot dogs. Guests brought alot of tastey food to compliment the meal.

NO AMP, Larry (pun intended) won the 2 meter

remote control amplifier door prize.

The picnic was a good opertually for the recently licensed to get together, many hadn't seen each other since the day of the exam. One such person got to make his first contact on a borrowed radio.

I want to thank everyone who helped and came and made the day a fun day, especially Russ, Al and KB0EPN, Andy and the people who stayed to clean up.

WAGMNL, Rosie (Picnic Chairperson)

#### PUEBLO V. E. TESTING

The following information concerns VE testing in Pueblo, Colorado:

Pueblo Ham Club

Test site: Pueblo Police Department Building Academy Training Room 130 Central Main Pueblo, Colorado 81002

Dates: November 2nd and December 21st Time: 0900

Application cutoff date 30 days prior to exam walk-ins accepted 30 minutes prior to exam. Complete application includes copy of current license and a check or money order for \$5.25, payable to ARRL-VEC, and completed FCC form 610. No fee for Novice test.

Contact : Joe Mihalick WB9YES 1050 Baxter Road Pueblo, Colorado 81006

#### **GENERAL MEETING MINUTES**

SEPTEMBER 11, 1991

The regular meeting of the Pikes Peak Amateur Radio Association was called to order by the President, Dave - NGION at 7 pm. There were approximately 81 members and guests present. After introductions, the minutes of the previous meeting and the Board meeting were approved as printed in G-BEAT. One correction was noted; the name of Werner Lewis was printed incorrectly and has been changed.

#### COMMITTEE REPORTS

Rosie - WAMMNL presented the treasurers report. Income to date was \$225 (the secretary apologizes that expenses were not recorded). Balance as of the meeting was \$1553.34.

Ron - NKJP asked for submissions of ideas or changes to improve B-BEAT. Articles are also wel-

conte.

There were no reports for Interference, Skywarn, Public Service, or CCARC.

Al - N2IWZ gave the Publicity report, noting an error in the publication of the education class dates by the Gazette will be corrected. Al gave thanks to the participants at the September 7th Amateur Awareness Day at Chapel Hills Mall. He indicated 60 hams signed in and helped and over 100 messages were sent. Special thanks went to Jake - N¢CYR, Steve - WB7VHR, Doug - WB¢MHP, and Ron - NK¢P.

John - NØKIC attended the ARES (Amateur Radio Emergency Service) state meeting and reported on the planned SET (Simulated Emergency Test) on October 19th. There will be message handling on a statewide basis and local participation is planned.

Doug - WBMMHP expressed thanks to RACES (Radio Amateur Civil Emergency Service) applicants and noted training would take place September 19th. A VHF RACES net meets on Tuesdays on 146.97 repeater following the ARES net which starts at 7 pm.

Al-ADØZ gave thanks to Al (publicity) for getting the word out about the upcoming education classes. About 50 people have signed up so far and the class could be a record size. Instructors are desired. Persons willing to teach just one class will be given outlines and guidance. The Novice classes will run for about 5 weeks and the Technician classes 3 to 4 weeks. Classes will meet on Monday and Thursday evenings and will use the text Now You're Talking!

A VE test was held September 14th,

Mike - KFTER presented Hammy to Al - N2IWZ. for recognition of his efforts with publicity - especially the September 7th effort. Al will keep the "trophy" for the month and present it to another deserving ham at the October meeting.

#### UNFINISHED BUSINESS

Elections are scheduled for October. Persons may be nominated from the floor on the night of the meeting.

The trailer is newly licensed and has new antenna mounts. An adjustable drop hitch has been purchased which allows towing by different vehicles.

#### **NEW BUSINESS**

Ron reported that the Shirt Stop still prints the club logo on caps, shirts, and jackets. A special account and price were set up for those wishing to take advantage of this service. Orders will be taken through September 30th.

After the break the raffle prizes went to the following:

QST	Bob KA2CAE
SWR Meter	WILLNOHED
Auto Museum tickets	Mark NØEPF
Aviators snips	Greg WA2OOD
Repeater directory	Al N2IWZ
Night Safety Light	Alan NYOPW
Appliance timer	RUSS KBOFNM

Al - ADØZ presented an excellent program on the Magellan Spacecraft and its encounter with Venus. The new information about the planet was quite intriguing.

After the presentation, the meeting adjourned at 9:45 pm. The next regular meeting will be at the Elks Club on October 9th.

Respectfully submitted, Mark - N/EPF

#### **NEW NOVICE**

We have another new novice in town. Deanna Wonders received her call KB#JNW this past weekend (Sept. 22nd). Deanna is the daughter of Mike, N#OCZ. Incidentally, Deanna is the proud mother of a two week old baby boy. Needless to say, grandpa Mike is so proud he can hardly stand if Congratulations to Deanna on both arrivals!!

(Submitted by KD@SU)

## DITS AND BITS

#### FOR SALE OR TRADE:

XT compatable computer w/CGA color \$400 or trade for a late model dual band mobile.

FREE: Various size pipes and conduit.
Al NICMW 473-1660

NOTE: To all those who find fault with 0-Beat: You may have the job or run for a Board position, Al NØCMW.

#### FOR SALE:

Kenwood TM-221A 2 mir mobile. Mint condition. \$275 (Firm)

Micronta Multitester VOM like new \$18
Terminals (light weight) for Packet Radio \$60 ea.
Hazeltine terminals (3) \$35 ea.
All kinds of CB radios, Call for price.
Ringo Ranger ARX-2B Base 2mtr. \$35
Call Will NMHRD 471-8527

#### FOR SALE:

Bird Wattmeter slugs, 250A; 50B; 25B; \$35 ca. 17-64k 120NS DRAMS \$5 FOR ALL

7/8 Andrews heliax cable w/ good connectors about 75 ft run \$50

Heathkit ID-1290 Weather station (late model) w/ all manuals and cables. \$75

RG-8U coax new on 500ft reel (abl 200ft) \$0.25/ft.

Call Ron NKPP 593-8352

#### FOR SALE:

AEA PK232 MBX \$250 Brothers typewriter w/ RS-232 port. \$75 PAC-COMM TNC 200 packet modem. \$100 Hamtronics TA51 2Mtr. xmitter \$100 Heathkit Microprocessor trainer \$100 TAPR PSK Modem \$50 Contact: Malcolm Benton KE9S 488-2071

FREE to a good home. QST magazine collection in good shape, dating back to 1939. Must take all. Ken, NMNKP 574-6358.

#### FOR SALE:

Hygain antennas: 14AVQ (10-40) \$65 12AVQ (10-20) \$40 18VS (10-80) trapless \$25 2BDQ (40-80) traps \$35

George, WMUDZ 635-4158





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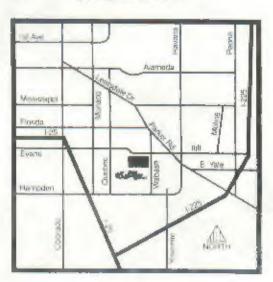
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#### Amateur Radio Put At The

Saturday, Sept. 7 was just that at The Citadel. F: (60 hams registered with us will give you an idea of ou

We had two locations. O east end on the upper 1 Mervyn's. The other was outs Our communication vehicles w Jacob's (NØCYR) motor home.

The two pites were link by numerous handhelds; pac Moloney, (WØMHP) and Doug Stockton's (KØROL) TV eq pictures of the parking lot

In the parking lot we courtesy of Jake (NMCYR) and by the end of the day over 12 on the nets.

We were really fortunat all the weather couldn't plenty of members turned out were never short handed. Tha but not least we had the as operators, Emily Baxter (NDOF Thanks for your enthusiastic counting on you both for hel

The media (KRDO TV and some nice coverage and thank have a 15 minute segment on next meeting. And last but no that accompany this text, pefforts of Charlie Davis (KW

Finally we had a bunch classes so we certainly mustright.

Photos - left

Our setup inside the mail

Two of the best, NØCYR and

Parket radio oot a lor of attention

#### lic Awareness Day Citadel

our day to shine and we did I those of you who missed it I the accompanying pictures Setup.

ne was inside the mail at the evel between Penney's and ide in the east parking lot, ere the club trailer and Jake

ed by 2 meter voice supplied ket radio supplied by Doug Paris, (N4TGO); and Oak ulpment which transmitted activity into the mall.

had operating HF equipment Steve Westby (WB7VHR). And O messages were starting out

e in so many ways. First of have been better. Secondly to lend a helping hand so we nk you one and all. And last slstance of two first rate (R) and Stephic Cox (KBFEZG). hard work, girls. We'll be p again next year.

(RDO radio and KOAA) gave us a fo Mark Jeakle (NOOTZ) we video which we'll see at the t least we have the pictures olus many more, Ame to the 40).

of shoppers sign up for our have been doing something

Al Crain, N2IWZ

Photos - right

NOOPG interviews WE7VHR for KEDO radio

Our setup in the mall parking lot

Jake's awning was a real help to our HF operators







#### YLISSB CONVENTION '91

by Faye Rerren, KB@QI

On the 21st of June, Millissa, my 9 year old granddaughter and 1 left Colo Spgs and drove to the Young Ladies International Single Side Band (YLISSB) convention in Richmond, VA. The YLISSB was started about 26 years ago by a few YL's and eventually started including OMs in their membership. To date we are almost 15,000 strong.

On our way we made a couple of layovers, one was in Oklahoma to visit my sister and then in Louisville, KY, where my daughter Lisa fiew in from Colo Spgs to join Millissa and I. We had thought OK was lush and green, but the further east we went the greener it was. It was just beautiful.

I run a Yaesu FT 77 on HF and a little from 28 A for two-meters and as you probably can imagine I talked my way across country. What was most enjoyable was talking to a group of hams near Beckley, WV. I had listened to them for 20 miles or more before I saked for a break. They were truly Southern gentlemen. They invited me into their group and I talked to them till I lost the repeater. I can close my eyes and still hear their soft West Virginia drawl.

We arrived in Richmond the 25th and checked into the Holiday Inn Fannie, the convention site. It had to be the nicest Holiday Inn I've ever seen. As we were checking in I saw WA5DZD [Margey] from New Orleans; from that moment on I either met old friends or met new ones that I've talked to for 10 years or more. WA4CUU [Harry] hosted the convention and had everything setup—radio, hospitality, and boutique rooms. There was in excess of a 100+ registered, and every state was represented. We only had one DX member this year, GM@BCI [Rolff] from Wales. The YLRL held a mini-convention in Stockholm at the same time as ours so many of our members opted to attend that convention.

Thursday was spent checking in and registering, then that evening we went on a dinner cruise down the historic James River and enjoyed great outsine and a fabulous ministerial show.

On Friday we went to Williamsburg where I spent hours actually seeing and trying to visualize what the people who lived in the houses were like. My favorite eras are the Revolutionary and Civil eras, so for me it was like taking a trip down history lane.

Saturday was spent in a business meeting, then we broke so everyone could get ready for the banquet and awards ceremony. After that we had a disc jockey that played records from the 40's and 50's. There was dancing and visiting which all enjoyed. Sunday started out with a continental breakfast, picture taking, sad farewells, and departures in all different directions—either flying or driving—with last minute promises or hopes of seeing each other in Colo Spgs in '92,

Lisa, Millissa, and I stayed an additional two days so we could explore Richmond. We tournd the State Capital where in the Virginia House of Delegates stood a bronze likeness of General Robert E. Lee at the exact spot he



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accepted the command of the Confederate forces and the balcony in the Speakers Gallery that collapsed during one of their sessions that crushed 16 people to death. For me these were truly touching moments. I found myself swallowing hard while listening to the lovely, soft Virginia voice of our tour guide. We then went out and sat in the park surrounding the Capital Building and watched the local workers on their lunchbreaks feeding the pigeons. While walking around the grounds we stopped to admire the work of an artist who was painting a likeness of a photograph that he had clipped to his easel. A few minutes later a car pulled up to the purb and two gentlemen got out; Millissa said, "Hey look, that's the man in the painting". He then walked up to us and introduced himself as Doug Wilder, which we recognized as the Governor of Virginia. He gave Millissa a big hug and said "Hi young lady" and we chatted about our visit to his state.

We visited battlefield sites and the fragile earthworks from Richmond to Williamsburg then back to Fannies to check out. We had planned on going into DC on the AMTRACK the next day but the forecast was for 100o; that plus the high humidity was just to much for us. So we left early the next morning for Charlottesville to tour through Thomas Jefferson's home at Monticello and really enjoyed that. Our next stop was St. Louis, MO, where we went through their museum and saw a movie before we went to the top of the Arch. After spending the night in St. Louis we stopped in Pt. Leonardwood, MO, to visit NAØV [Minnie] and KØRDJ [Rick Connelly], and other YI, members. Since we would be going through Hayes, KS, that meant another stop to see the Ft. Hayes museum, and the replica of the old Fort. Then the rush was on to get back to Ochelata, OK, to spend the Fourth of July with our relatives there.

It was great getting back to CO. By the time we could see Pikes Peak the air started getting cooler and by the time we got into Colo Spgs we had the heater on low and it felt great to be back. I spent a couple of days at home and took off for Rock Springs, WY, to meet another daughter. Dene, for a trip to Custer, SD. We did the usual tourist things and of course had to go on to Deadwood and donate a couple rolls of quarters.

I arrived back home just in time to make the annual club picnic—to visit with friends and sample all the great food. I told my family that I was going to hibemate and if anyone even mention going someplace—I'd pop them.

At our YLISSH convention the next site was picked for '92 and Colo Spgs was chosen unanimously; so with W@RTB [Harry's] help we will host the convention in June 1992. Club members suggestions or help with communications—like talk in frequencies—will be appreciated. We are expecting some of our DX members to attend from New Zealand, Japan, Mexico, and Canada. This is the first time I've attempted any thing like this, so others' expertise is needed.

#### **BOARD MINUTES**

SEPTEMBER 17, 1991

The regular Board meeting was called to order byDave - NøION at 7 pm. Members and guests met in the home of Ron - NKØP. Present were: NøCMW, NØLH, WAØMNL, KBØFNM, NZIWZ, KAØROY, and NØEPF.

Nominations and election procedures were discussed in advance of the upcoming elections at the

October club meeting,
Renay noted several possibilities of alternate locals for the Christmas Party. The Elks Club is still a
possibility.

In addition to elections, the October meeting will feature an ARRL video and a tape presentation of some of the "mall stuff" by A1 - N2IWZ.

The Board discussed the possibility of publishing, in #BEAT, the breakfast get - together on Saturdays and the complete club equipment list (whenever it is compiled). Also, #BEAT will publish 350 copies for the next month or so because of increased demand and membership.

It was MOVED and seconded to pay the \$33 spent by Alon Amateur Radio Public Awareness Day. The motion PASSED.

The board accepted the offer of Rick - KDdSU to become the HF/VHF Awards Manager for the ARRL, As one of the privileges of the PPRAA being a Special Service Club, a member can be nominated for this prestigious position. A letter of nomination will be forwarded to the ARRL shortly. Rick will be able to serve not only the local community but also the national community as awards manager.

Discussion concluded with a MOTION to not allow purchase of the Public Service Handbook for distrubtion to newly licensed hams in the area. It was felt that the subject was well covered in the training manual and hams desiring further involvement could easily obtain the handbook on their own. The motion PASSED.

Al presented several possible changes to the Bylaws which would reflect the growth of the club membership. Members will consider the changes and more information will appear in Ø-BEAT and at the club meeting if a membership vote is desired.

It was MOVED and seconded to give \$100 to the Elks Club for their scholarship fund. The motion PASSED.

There being no further business before the Board, the meeting adjourned at 8:49 pm. The next meeting will be at Jeff's house on October 15th.

Respectfully submitted, Mark - NOEPF



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#### **M NOVI-LOOP**

A Wire Antenna for 40-meter DXing

Optimum directivity occurs at right angles to the plane of the loop, or in more simple terms, broadside from the loop. Therefore, one should try to hang the system from available supports which will enable the antenna to radiate the maximum amount in some favored direction. The bidirectional pattern is maximized NE and SW at the writer's QTH. This gives good results in working Europeans and the stations "down under." Excellent signal reports have been obtained off the sides of the loop when working within the U.S.A.

Just how the wire is erected will depend on what is available in one's yard. Trees are always handy for supporting antennas, and in many instances the house is high enough to be included in the lineup of solid objects from which to hang a radiator. If only one supporting structure is available it should be a simple matter to put up an Aframe or pipe mast to use as a remaining support.

The overall length of the wire used in a loop is determined from the formula 1005/f(MHz). Hence, for operation at 7125 kHz the overall wire length will be 141 feet. The matching transformer, an electrical quarter wavelength of 75-ohm coax cable can be computed by dividing 234 by the operating frequency in MHz, then multiplying that

number by the velocity factor of the cable being used. Thus, for operation at 7125 kHz: 234/7.125 (MHz) = 32.84 feet.

If coax with solid polyethylene insulation is used a velocity factor of 0.66 must be employed. Foam-polyethylene coax has a velocity factor of 0.80. Assuming we are to use the solid dielectric coax, RG-59/U, the length of the matching transformer becomes 32,84 (feet) x 0.66-21.67 feet, or 21 feet and 8 inches. The transformer will convert the 100-ohm

the reactance dropped to zero, though the antenna loaded up fine prior to the final trimming. The feed impedance at 21 MHz was also 110 ohms, but considerable inductive reactance was observed. Most certainly one could use the antenna on 15 meters with reasonable success, despite the SWR which might be present.

#### Results

During two weeks of testing the loop gave an excellent account of itself. It was compared with the writer's two-element short beam

TREE -> FEET NO. 14 WISE -- CLIVES
FIFE
HART

TREE -> 7 FEET

feed-point impedance of the loop to 50 ohms...a convenient value for connecting the system to the transmitter. The loop described here was measured with the K1PLP Macromatcher and found to exhibit an impedance of 110 ohms. Some inductive reactance was indicated. By removing one foot of wire from the overall loop for 40 meters, and the results indicated that the loop was better than the beam on some occasions. At other times the beam provided better performance, or was at least equal to the loop. The differences noted were the result of band conditions and the time of day. High-angle signals can cause misleading results when comparing

antennas for hf-band use. More meaningful tests can be made on ground-wave contacts, however, and several checks made between the loop and the beam indicated that radiation at right angles to the plane of the loop compared closely with that from the front of the beam. The beam is rotatable and installed 40 feet above ground.

With 150 watts dc input to the transmitter PA, and operating at the low end of 40 meters (loop was cut for 7050 kHz), the first night of operation resulted in the logging of three Russian stations, two Polish ones, two Yugoslavians, one Italian station and two English ones. The lowest report was RST 549. The highest report was RST 599. Generally speaking, the loop has outperformed the beam during most longhaul contacts. Though no effort has yet been made to work South American stations (off the side of the loop), they have been heard loud and clear, as have some VK stations via long path at approximately 2300 GMT.

It is quite likely that the Novice who chooses to erect his own Novi-Loop will have a commanding signal on 40 meters. If back-yard space permits, it should be a worthwhile venture. Don't forget the formulas and guidelines given here are applicable to the other hf Novice bands as well.

LINCOLN LOG

Fig.1 -- Details of the full-wave loop used as the basis for this article. The dimensions given are for operation at the low end of 40 meters (7050 kHz). The height above ground was 7 feet in this instance, though improved performance should result if the builder can install the loop higher above ground without sacrificing length on the vertical sides. The inset illustrates how a single supporting structure can be used to hold the loop in a diamond-shaped configuration. Feeding the diamond at the lower tip provides radiation in the horizontal plane. Feeding the system at either side will result in vertical polarization of the radiated signal.

#### PROPOSED AMENDMENTS TO PPRAA BY-LAWS

The following amendments to the By-Laws of the PPRAA proposed at the last board meeting, being published in Ø-beat prior to the October 1991 club meeting to comply with ARTICLE X of said By-Laws, will be put to a vote of the membership at that meeting.

It is proposed that a new section under ARTI-CLE III, BOARD OF DIRECTORS: be added as follows:

#### Section 3. Removal from Office

Any director of the association who misses two board meetings in succession without notifying the President or Vice-President at least 24 hours prior to the meeting will be considered to have resigned his/her position. However, a director who cannot attend a board meeting and has notified the President or Vice-President to that effect may appoint a member in good standing to act for him/her in which case the director will not be considered to have resigned even if he/she misses a number of concurrent meetings.

The current Sections 3 - 7 would be renumbered as Sections 4 - 8.

It is proposed that under ARTICLE IV, OFFI-CERS:, the part of Section 2 pertaining to the duties of the Secretary be amended to read as follows:

c. The Secretary shall keep a record of the proceedings of all meetings, carry on all correspondence, read communications at all meetings and such other duties pertaining to the office. At the expiration of his/her term he/she shall turn over items belonging to the association to his/her successor.

#### Committee Chairpersons, etc.

Publicity:	Al Craig N2IWZ	594-9288
Membershipi	Les Borst KOONO	834-3995
Education:	Allen Balley ADGZ	897-8514
VE Testing:		
Main Contact:	Chris Smith NXØE	495-0824
ARRL Liason:	Bill Stanfill K4YGD	631-7738
Interferança:	Leuren Libby 10090	693-9861
FACES:	Doug Moloney WERMHP	(unlisted)
ARES:	John Chapman NØKIC	638-1604
SKYWARN:	Sleve Westby WB7VHR	670-1070
Public Service:	Mike Stansberry KØTER	836-1290
GGARC:	Oak Stockton KOROL	570-7782
Club Trailer:	Steve Westby WB7VHR	570-1070
O-BEAT:	Ron Deutsch NKØP	593-8352

It is proposed that under ARTICLE VII, COM-MITTEES:, Sections 6 & 7 be amended to read as follows:

#### Section 8. Publicity committee

The publicity committee shall be responsible for the dissemination of information to the mass media concerning the activities of the association and amateur radio in general.

#### Section 7. Membership committee

The membership committee shall be responsible for receiving membership applications and renewals and keeping the membership list current. This committee shall print out the labels for Zero Best monthly as well as a complete membership rosts for publication in Zero Best every four months. The chairperson or a committee member must have access to a computer and printer.

it is also proposed that a new section be added as follows:

#### Section 10. Zero Best committee

The Zero Beat committee shall be responsible for the production and malling of the monthly association publication Zero Beat.

The current Section 10 would be renumbered as Section 11.

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### NOTICE!!

#### PPRAA ELECTION NOTICE

The annual PPRAA elections will be conducted during the October regular club meeting. All members should plan to be present for this important meeting. If you would like to run or nominate someone please contact one of the club officers as soon as possible.

Note: Remember both club officers and board members should be able to attend both the regular club meeting and the associated directors meeting each month.

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